

## GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS MATERIALS TESTING

Project No. 5907.5.001.01

May 28,2003

Mr. Tony Wood 7884 Jon Way Granite Bay, CA 95746

Subject:

7884 Jon Way

Granite Bay, California

## PRELIMINARY GEOTECHNICAL RECONNAISSANCE

Dear Mr. Wood:

As requested, we visited your residence at 7884 Jon Way in Granite Bay, California to observe the surface conditions with regard to potential seepage concerns from a nearby pond. We provided our services in accordance with our signed agreement dated May 7, 2003.

We visited the property on May 8, 2003 and met with you and your landscape contractor. We understand that you have experienced some subsurface water problems at the rear of your property and suspect that it is related to the pond located just uphill of your residence. During our visit we did observe the wet and soggy conditions you described in the rear of the yard.

We understand the rear lawn at your property has been continually wet and soggy, even with sprinklers turned off for a long time. The rear of the property lies just below an earth dam that retains a small neighborhood pond. The water level of the pond appeared to be approximately 4 to 5 feet above the back of the lot. It appears that the downhill toe of the earth dam lies directly at the back of your property.

As a result of the wet, soggy conditions, your landscape contractor has recommended installation of a trench drain to collect below-grade water at the back of the lot. The trench drain is to consist of a perforated PVC pipe enveloped in crushed rock with filter fabric, which will drain to a sump pump at the back corner of the lot.

Based on our surface observations, it is our opinion that the water in the pond is a likely source of subsurface water contributing to the wet and soggy conditions at the rear of your property. Over time, all homogeneous earth dams allow seepage to pass through. Depending on the subsurface soil conditions that comprise the foundation and earth dam, seepage generally will daylight near or just below the downhill toe. Installation of a trench drain, such as proposed by the landscape contractor, may serve to mitigate the wet conditions. However, subsurface groundwater flow is a complex phenomenon and there are many factors that can affect when and

Tony Wood 7884 Jon Way PRELIMINARY GEOTECHNICAL RECONNAISSANCE 5907.5.001.01 May 28, 2003 Page 2

where subsurface groundwater can occur. It is possible that seepage could still occur at depth and bypass the trench drain. After installation of the trench drain, we recommend you monitor the property for any other evidence of wet or soggy conditions that may be indicative of subsurface seepage.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,

**ENGEO** Incorporated

Mark Gilbert, G.E.

Geotechnical Engineer No

mg/reviewed by pcg